

Title:

Research and Development

Revision:

B

Revision Date:12/30/2009

Process Description/Objective:

Scientific investigation focused on discovering and applying new facts, basic properties, or techniques. Determination of the best methodology to bring a WSTF developed new process or hardware to the production stage. The exact nature of the effort is agreed upon in the customer agreement review.

Process Steward(s):

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Interfacing Processes

- Safety and Readiness Review
 - System Safety Analysis
 - Return Customer Supplied Product
 - Test Reports and WSTF Documentation
 - Purchase Request-Purchase Order
 - Task and Delivery Order
 - Reimbursable
 - Standard Testing
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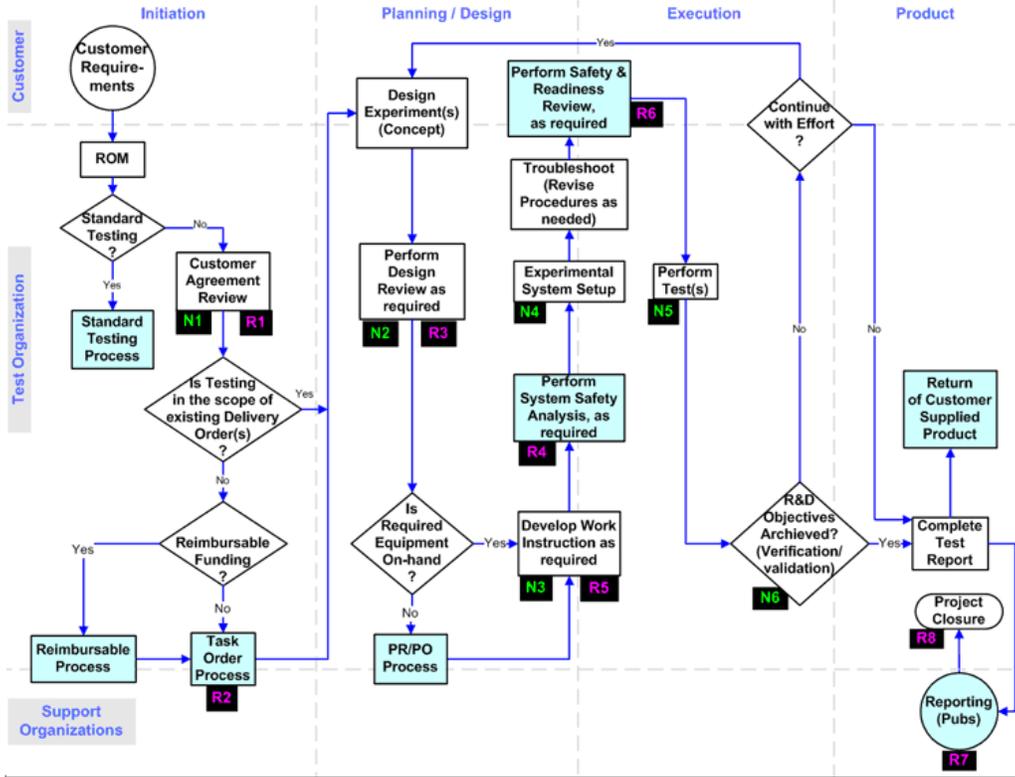
Input Requirements:

Customer requirements
Possibly Customer Supplied Product

Output Requirements:

Report
Possibly Customer Supplied Product

Note: The following measures may be taken at any time during the process: I1 I2 I3 O1 O2 O3 O4



NOTES

Note 1

"Customer Agreement Review" (NASA WSTF WSP 03-0001).

The project managers are empowered to establish the threshold at which routine customer communication becomes a complaint, and are accountable to management for the customer relationship. WSP09-0014, *Project Management* and WSI 01-SW-0001, *Customer Survey Process* discuss processing customer input in general.

Note 2

Design Control (WSP 04-0001)

Note 3

TPS processing process.

Note 4

Experimental system set-up is preliminary and may change upon safety and readiness reviews.

Note 5

Customer witnessing of the testing may occur.

Note 6

This decision can be posed at any point in the process. Also, the user is advised that even if the objectives are achieved, the customer may choose to redesign as necessary, returning to the Planning/Design phase Design Experiment(s) (Concept) block.

If the design or requirements change substantially, it may be necessary to modify the Task Order by returning to the Initiation phase "Delivery Order Process" block.

RECORDS

Record 1

Customer Agreement Review

Record 2

Task Order

Record 3

Experimental Design and Design Review Records, as needed.

Record 4

System Safety Analysis (SSA) Review Records, as needed.

Record 5

Work Authorizing Document

Record 6

Safety and Readiness Review Records, as needed.

Record 7

Report

Record 8

Project File (Type 1 Projects Only)

IN PROCESS METRICS

In Process Metric 1

Number of Active Projects

In Process Metric 2

Cost Performance Index (CPI)

In Process Metric 3

Schedule Performance Index (SPI)

OUTPUT METRICS

OutPut Metric 1

Number of Completed Projects Meeting Objectives

OutPut Metric 2

Evaluation Feedback (Number of + and - Ratings)

OutPut Metric 3

Standard Deviation of CPIs for Completed Projects

OutPut Metric 4

Evaluation Feedback (Percentage of Projects Meeting Milestones, Deliverables, and Cost)

MSM DOCUMENTS

Customer Agreement Review (WSP-03-0001)

Project Management (WSP-09-0014)

Design Control (WSP-04-0001)

REFERENCES

ISO 9001:2000, Clause 7, Product Realization